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BENNETT JONES
C/O MS ROSEANN CALDWELL
4500 BANKERS HALL EAST
855 - 2ND STREET, SW
CALGARY, AB T2P 4K7
CANADA

EXAMINER

COLLINS, GIOVANNA M

ART UNIT PAPER NUMBER

3672

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,748

Applicant(s)

LIVINGSTONE, JAMES I.

Examiner

Giovanna M. Collins

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-65 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18,20-41,43-50,53-54,56-58 of copending Application No. 10/644,749. Although the conflicting claims are not identical, they are not patentably distinct from each other because the application limitations of a drill string although broader are obviously met by the application's limitation of a coiled tubing concentric string which is a type of drill string.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3,20,25,32,41 are rejected under 35 U.S.C. 102(b) as being anticipated by Shikata 4,543,019.

Referring to claims 1, 2,25, Shikata discloses (see Fig. 2 and 3) apparatus and method for drilling a direction or horizontal wellbore comprising providing a concentric drill string consisting essentially of an inner pipe (2) and an outer pipe (3) and an annulus between the pipes; connecting a bottomhole assembly comprising a drilling means (4) and a interchange means (at 3a) to the concentric drill string and delivering drilling medium through one of the annulus or inner pipe to the directional drill means (at A) and removing exhaust drilling medium by extracting the exhaust drilling medium through the other of the annulus or inner pipe (at B).

Referring to claim 3, Shikata discloses the drilling fluid is delivered through the annulus (at A) and the exhaust drilling medium is extracted through the inner pipe (at B).

Referring to claims 20 41, Shikata discloses an venturi (see fig. 2, at B to left) and accelerating said exhaust drilling medium through the venturi.

Referring to claim 32, Shikata discloses a reverse circulation drilling means (4).

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5. Claims 1-2,4-6,12,14,15,18,22,24,25,27,33,34,36,37,43,44,50,52, and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee 1,850,403.

Referring to claim 1, 2, 25, 27,44, Lee discloses (see Fig. 1 and 2) a method and apparatus for drilling a direction or horizontal wellbore comprising providing a concentric drill string consisting essentially of an inner pipe (1) and an outer pipe (46) and an annulus between the pipes; connecting a bottomhole assembly comprising a directional drilling means (73) and a drill collar (at 94) to the concentric drill string and delivering drilling medium through one of the annulus or inner pipe to the directional drill means (page 2, lines 51-59) and removing exhaust drilling medium by extracting the exhaust drilling medium through the other of the annulus or inner pipe (see Fig. 1 between elements 1 and 46).

Referring to claim 4, Lee discloses the drilling means is delivered through the inner pipe and the exhaust drilling medium is extracted through annulus (page 6, lines 52-55).

Referring to claims 5-6, Lee discloses drilling cutting and hydrocarbons are extracted together with the exhaust drilling medium (page 6, lines 52-55).

Referring to claims 12,18,33,34 Lee disclose the drill medium comprises air (page 2, line 51-59) and the direction drilling means comprises a reverse circulating reciprocating air hammer, a drill bit (page 4, lines 55-61) and a bent sub or housing (at 45).

Referring to claims 14,15,36,337 Lee discloses the drill medium comprises air (page 2, line 51-59) and the direction drilling means comprises a drill bit, a reverse circulating steerable downhole air motor (page 4, lines 55-61) and a bent sub or housing (at 45).

Referring to claim 24, Lee discloses an interchange means (see fig 1. at 35).

Referring to claims 50-52,61 Lee discloses a method and apparatus of drilling a directional or horizontal wellbore in a hydrocarbon providing a concentric drill string comprising an inner pipe (1), said inner pipe having an inside wall and an outside wall, and an outer pipe (46) having an inside wall and an outside wall, said outside wall of said inner pipe and said inside wall of said outer pipe defining an annulus between the pipes; connecting a bottomhole assembly comprising a directional drilling means (73), said directional drilling means comprising a drill bit, a reverse circulating steerable downhole air motor or air hammer (page 4, lines 55-61) and a bent sub or housing (at 45) for forming a borehole, to the concentric drill string; and delivering drilling medium comprising air (page 2, lines 51-59) through one of said annulus or inner pipe to said directional drilling means and removing exhaust drilling medium by extracting said exhaust drilling medium through said other of said annulus or inner pipe.

6. Claims 1,2,13,19,25,35,40,53 and 63 are rejected under 35 U.S.C. 102(b) as being anticipated by Cherrington 4,043,136.

Referring to claim 1, 2, 25, Cherrington discloses (see Fig. 1 and 2) a method and apparatus for drilling a direction or horizontal wellbore comprising providing a concentric drill string consisting essentially of an inner pipe (28) and an outer pipe (10) and an annulus between the pipes; connecting a bottomhole assembly comprising a reverse circulation directional drilling means (36) and a drill collar (at 32) to the concentric drill string and delivering drilling medium (at 42) through one of the annulus or inner pipe to the directional drill means and removing exhaust drilling medium by extracting the exhaust drilling medium through the other of the annulus or inner pipe (at 60).

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Referring to claims 13, 19,35 and 40 Cherrington discloses drilling mud (at 42) a rotary drill bit (36), a rotary table or top drive drilling system (col. 4, lines 57) and a bent sub or housing (see Fig. 1).

Referring to claim 53 and 63, Cherrington discloses (see Fig. 1 and 2) a method and apparatus for drilling a direction or horizontal wellbore comprising providing a concentric drill string comprising an inner pipe (28) and an outer pipe (10) and an annulus between the pipes; connecting a bottomhole assembly comprising drilling mud (at 42) a rotary drill bit (36), a rotary table or top drive drilling system (col. 4, lines 57) and a bent sub or housing (see Fig. 1). (36) to the concentric drill string and delivering drilling medium (at 42) through one of the annulus or inner pipe to the directional drill means and removing exhaust drilling medium by extracting the exhaust drilling medium through the other of the annulus or inner pipe (at 60).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 22 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee ('403) in view of Sinclair et al. ('515).

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Referring to claims 22 and 43, Lee discloses the method and apparatus as claimed. Smet does not disclose the use of a suction compressor. Sinclair teaches using a suction compressor to help remove cuttings from a drill string (see col. 2, lines 59-60). As it would be advantageous to have a suction compressor to help the removal of the cuttings be done more easily it would be obvious to modify Smet to have a suction compressor as taught by Sinclair.

Response to Arguments

9. Applicant's arguments with respect to claims 1-7,12-15,18-22,24-25,27,28,32-37,40-41,43-44,50,52-53,61,63 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 703-306-5707. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gmc


David Bagnell
Supervisory Patent Examiner
Technology Center 3670